

In the claims:

Please cancel, without prejudice, claims 18-20, 31, 33, 35, and 36.

1. **(Currently amended)** A method for inhibiting growth or differentiation of an epithelial cell, comprising topically contacting at least an epithelial cell with an amount of an agent effective to inhibit at least one of the growth or differentiation of said epithelial cell, wherein said agent is an anti-hedgehog antibody, and wherein the anti-hedgehog antibody is selected from 5E1, ~~AP-G6~~, a humanized anti-hedgehog antibody thereof, or fragments thereof.
2. **(Previously presented)** The method of claim 1, wherein the anti-hedgehog antibody is a humanized anti-hedgehog antibody, or fragments thereof.
- 3-4. **(Cancelled)**
5. **(Currently amended)** A method for inhibiting growth of an epithelial tissue, comprising topically contacting at least the epithelial tissue with an amount of an agent effective to inhibit proliferation of at least the epithelial cells in the tissue, wherein the agent is an anti-hedgehog antibody, and wherein the anti-hedgehog antibody is selected from 5E1, ~~AP-G6~~, a humanized anti-hedgehog antibody thereof, or fragments thereof.
6. **(Previously presented)** The method of claim 5, wherein the anti-hedgehog antibody is a humanized anti-hedgehog antibody, or fragments thereof.
- 7-8. **(Cancelled)**
9. **(Currently amended)** A method for inhibiting growth of hair on an animal, comprising topically applying to treating the animal ~~with~~ an amount of an agent effective to inhibit growth of hair on said animal, wherein the agent is an anti-hedgehog antibody, which anti-hedgehog antibody inhibits proliferation of hair follicle keratinocytes, and wherein the anti-hedgehog antibody is selected from 5E1, ~~AP-G6~~, a humanized anti-hedgehog antibody thereof, or

fragments thereof.

10. **(Previously presented)** The method of claim 9, wherein the anti-hedgehog antibody is a humanized anti-hedgehog antibody, or fragments thereof.

11-12. **(Cancelled)**

13. **(Original)** The method of claim 1, wherein the epithelial cell is a cutaneous epithelial cell.

14. **(Original)** The method of claim 1, wherein the epithelial cell is a dermal keratinocyte.

15. **(Original)** The method of claim 1, wherein the epithelial cell is a mucosal epithelial cell.

16. **(Original)** The method of claim 1, wherein the epithelial cell is an epithelial stem cell.

17. **(Original)** The method of claim 1, wherein the epithelial cell is a hair follicle stem cell.

18-20. **(Cancelled)**

21. **(Previously presented)** The method of claims 2, 6, or 10, wherein the anti-hedgehog antibody binds to a Sonic hedgehog protein.

22. **(Previously presented)** The method of claims 2, 6, or 10, wherein the anti-hedgehog antibody binds to an Indian hedgehog protein.

23. **(Previously presented)** The method of claims 2, 6, or 10, wherein the anti-hedgehog antibody binds to a Desert hedgehog protein.

24. **(Currently amended)** A method for inhibiting the proliferation of hair follicle cells, comprising topically contacting the cells with an amount of an agent effective to decrease the

proliferation of the hair follicle cells, wherein the agent is an anti-hedgehog antibody, ~~and wherein the anti-hedgehog antibody is selected from 5E1, AP.G6,~~ a humanized anti-hedgehog antibody thereof, or fragments thereof.

25. **(Currently amended)** The method of claim 24, wherein the anti-hedgehog antibody is selected from 5E1, a humanized anti-hedgehog antibody thereof, or fragments thereof.

26-29. **(Cancelled)**

30. **(Previously presented)** The method of claim 1, wherein the anti-hedgehog antibody is 5E1.

31. **(Cancelled)**

32. **(Previously presented)** The method of claim 9, wherein the anti-hedgehog antibody is 5E1.

33. **(Cancelled)**

34. **(Previously presented)** The method of claim 24, wherein the anti-hedgehog antibody is 5E1.

35-36. **(Cancelled)**

37. **(New)** A method for inhibiting growth or differentiation of an epithelial cell, comprising topically contacting at least an epithelial cell with an amount of an agent effective to inhibit at least one of the growth or differentiation of said epithelial cell, wherein said agent is an anti-hedgehog antibody, a humanized anti-hedgehog antibody thereof, or fragments thereof.

38. **(New)** A method for inhibiting growth of an epithelial tissue, comprising topically contacting at least the epithelial tissue with an amount of an agent effective to inhibit proliferation of at least the epithelial cells in the tissue, wherein the agent is an anti-hedgehog antibody, a humanized anti-hedgehog antibody thereof, or fragments thereof.

39. (New) A method for inhibiting growth of hair on an animal, comprising topically applying to the animal an amount of an agent effective to inhibit growth of hair on said animal, which agent inhibits proliferation of hair follicle keratinocytes, wherein the agent is an anti-hedgehog antibody, a humanized anti-hedgehog antibody thereof, or fragments thereof.
40. (New) The method of claim 37, wherein the epithelial cell is a cutaneous epithelial cell.
41. (New) The method of claim 37, wherein the epithelial cell is a dermal keratinocyte.
42. (New) The method of claim 37, wherein the epithelial cell is a mucosal epithelial cell.
43. (New) The method of claim 37, wherein the epithelial cell is an epithelial stem cell.
44. (New) The method of claim 37, wherein the epithelial cell is a hair follicle stem cell.
45. (New) The method of claim 9, wherein the anti-hedgehog antibody affects the anagen phase of the hair growth cycle.
46. (New) The method of claim 24, wherein the anti-hedgehog antibody affects the anagen phase of the hair growth cycle.